

Elsevier has created a <u>Monkeypox Information Center</u> in response to the declared public health emergency of international concern, with free information in English on the monkeypox virus. The Monkeypox Information Center is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its monkeypox related research that is available on the Monkeypox Information Center - including this research content - immediately available in publicly funded repositories, with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the Monkeypox Information Center remains active.

## **ARTICLE IN PRESS**

Anales de Pediatría xxx (xxxx) xxx-xxx

## analesdepediatría



www.analesdepediatria.org

## SCIENTIFIC LETTER

### Monkeypox, also in pediatric age

# Viruela del mono, también en la edad pediátrica

Dear Editor,

We present the case of a girl aged 3 years brought in for observation of cutaneous lesions in the absence of fever. pruritus or other symptoms. The salient feature in the physical examination was the presence polymorphous cutaneous lesions localised to the buttocks, with umbilicated pustular, vesicular and papular elements and a maximum diameter of 3 mm (Figs. 1 and 2). There was no evidence of oral, perianal or genital lesions. There was also no significant lymph node or visceral organ enlargement, and the rest of the examination was normal. A few hours earlier, monkeypox virus (MPXV) infection had been confirmed in the father. The patient had no history of travel or contact with animals. Testing by of a vesicular fluid swab specimen turned out positive for MPXV (real-time polymerase chain reaction). Instructions were given to have the patient isolate at home with use of contact, airborne and droplet precautions until the full resolution of the cutaneous lesions (at 10 days from onset). At the 2-month follow-up, there were no complications and new lesions had not developed. Additional cases had not been detected in any contacts in the school.

This is the first paediatric case of MPXV infection reported in Spain (June 17, 2022).

Monkeypox is a viral zoonosis produced by MPXV, which has become the most important *Orthopoxvirus* species worldwide.<sup>1</sup> At present, numerous outbreaks have been







Figure 2 Detail of cutaneous lesions in Fig. 1.

identified in different countries, with more than 2000 cases reported in Spain as of July 2022. The severity of the infection depends on the presence of comorbidities and age, with a reported overall mortality of 15% and a higher risk in young children in endemic areas in sub-Saharan Africa.<sup>2</sup>

It produces symptoms similar to those observed in patients with smallpox, although less severe. The main mechanism of transmission in humans is through contact with mammals, chiefly rodents or primates, in endemic

2341-2879/© 2022 Asociación Española de Pediatría. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

# **ARTICLE IN PRESS**

#### M. Roguera Sopena, L. Naqui Xicota, Á. Hernández Rodríguez et al.

regions. Transmission from one person to another is also possible through air droplets, direct contact with cutaneous lesions, bodily fluids or objects used by infected individuals.<sup>1</sup> The most frequent mechanism of transmission in the current outbreak has been sexual contact.

Infection by MPXV tends to cause mild and self-limiting disease lasting 2-4 weeks that only requires symptomatic treatment. However, in some cases it may cause severe disease. Complications can include bacterial superinfection of the cutaneous lesions, bronchopneumonia, sepsis, encephalitis and keratitis. Isolation measures are indicated, with contact, airborne and droplet precaution, until the full resolution of the cutaneous lesions. Antiviral drugs, such as brincidofovir and tecovirimat, have been tried in humans, but there is not enough evidence yet to support the indication.<sup>3</sup> Post-exposure prophylaxis with intravenous immunoglobulin or smallpox vaccine is not approved in the paediatric age group, and should be reserved for compassionate use.<sup>4</sup> Whenever a case is confirmed, close contacts should be followed up, especially any sexual contacts, for 3 weeks.

### References

 Ministerio de Sanidad. Alerta de viruela del mono en España y a nivel mundial. Protocolo para la detección precoz y manejo de casos ante la alerta de viruela de los monos (Monkeypox) en España. Madrid: Ministerio de Sanidad; 2022 [Accessed 16 June 2022]. Available from: https://www.sanidad.gob.es/profesionales/saludPublica/ccayes /alertasActual/alertaMonkeypox.

- Eltvedt AK, Christiansen M, Poulsen A. A case report of Monkeypox in a 4-year-old boy from the DR Congo: challenges of diagnosis and management. Case Rep Pediatr. 2020;2020:8572596, http://dx.doi.org/10.1155/2020/8572596.
- Adler H, Gould S, Hine P, Snell LB, Wong W, Houlihan CF, et al. Clinical features and management of human monkeypox: a retrospective observational study in the UK. Lancet Infect Dis. 2022;22:1153–62, http://dx.doi.org/10.1016/S1473-3099(22)00228-6.
- Rodríguez-Cuadrado F, Pinto-Pulido E, Fernández-Parrado M. Inmunoglobulina anti-Vaccinia y profilaxis postexposición mediante vacuna basada en Vaccinia para el control del brote de viruela símica (Monkeypox). Actas Dermosifiliogr. 2022, http://dx.doi.org/10.1016/j.ad.2022.08.017. In press.

Marc Roguera Sopena\*, Laura Naqui Xicota, Águeda Hernández Rodríguez, María Jesús Méndez Hernández, Carlos Rodrigo Gonzalo de Liria

Hospital Germans Trias i Pujol, Badalona, Barcelona, Spain

\* Corresponding author.

*E-mail address*: mroguera.germanstrias@gencat.cat (M. Roguera Sopena).